

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of December 10, 2007 is respectfully requested.

By this Amendment, claims 12-24 have been cancelled and new claims 25-44 have been added and are currently pending in the application. No new matter has been added by these amendments.

The entire specification and abstract have been reviewed and revised. Due to the number of revisions, the amendments to the specification and abstract have been incorporated into the attached substitute specification and abstract. For the Examiner's benefit, a marked-up copy of the specification and abstract indicating the changes made thereto is also enclosed. No new matter has been added by the revisions. Entry of the substitute specification is thus respectfully requested.

On page 2 of the Office Action, the Examiner objected to the specification due to two spelling errors identified by the Examiner. It is noted that the spelling errors have been corrected in the attached substitute specification. Therefore, it is respectfully submitted that the Examiner's objections are not applicable to the substitute specification.

On page 2 of the Office Action, the Examiner objected to claim 18 for failing to further limit the subject matter of previous claim 17. In particular, the Examiner asserted that a segmented wave breaker would have end walls. It is noted that new claims 27 and 30 recite that the wave breaker can be a triangular shaped ridge, a smooth sheet or a perforated sheet. Further, claims 28, 32 and 34 recite that the ridge or sheet can be made of segments, and claims 29, 33 and 35 recite that the segments of the ridge or sheet have end walls. In this regard, it is noted that page 2, line 25 of the original specification discloses that the segments "could" have end walls, and therefore implicitly discloses that the segments could not have end walls. Therefore, the recitation of "segments" in claims 28, 32 and 34 does not necessarily require that the segments have end walls. Accordingly, the recitation of end walls in claims 29, 33 and 35 further limits previous claims 28, 32 and 34, and therefore it is respectfully submitted that the Examiner's objection is not applicable to new claims 29, 33 and 35.

Further, it is noted that the “Infringement Test” set forth in MPEP § 608.01(n)(III) states: “The test for a proper dependent claims under the fourth paragraph of 35 U.S.C. 112 is whether the dependent claim includes every limitation of the claim from which it depends. The test is not one of whether the claims differ in scope.” In this regard, it is noted that dependent claims 29, 33 and 35 include every limitation of claims 28, 32, and 34 from which they depend, respectively. Therefore, it is respectfully submitted that claims 29, 33 and 35 are proper dependent claims.

On page 2 of the Office Action, the Examiner rejected claim 13 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner indicated that the meaning of the phrase “similar materials” is unclear. As indicated above, claims 12-24 have been cancelled and replaced with new claims 25-44. It is noted that the new claims do not include the phrase “similar materials,” and therefore it is respectfully submitted that the Examiner’s rejection under § 112 is not applicable to the new claims.

On pages 3-15 of the Office Action, the Examiner rejected claims 12-19 and 21-24 under 35 U.S.C. § 103(a) as being unpatentable over Fareid et al. (WO 91/08982) in view of Ward et al. (WO 98/28073). However, as indicated above, claims 12-24 have been cancelled and replaced with claims 25-44. For the reasons discussed below, it is respectfully submitted that the new claims are clearly patentable over the prior art of record.

New independent claim 25 recites a support system for catalyst gauzes in an ammonia oxidation burner, including ceramic fillings arranged so as to support the catalyst gauzes, with the ceramic fillings being contained in a burner basket having metal walls and a perforated bottom plate. Claim 25 also recites *a wave breaker arranged in the ceramic fillings, with the wave breaker being fixed to at least one of an outer periphery of the bottom plate and one of the metal walls.*

New independent claim 41 recites a method of reducing movement of ceramic material and avoiding tearing of catalyst gauzes in an ammonia oxidation burner. The method of claim 41 includes supporting the catalyst gauzes with ceramic fillings contained in a burner basket having metal walls and a perforated bottom plate, and *arranging a wave breaker in the ceramic fillings*

and fixing the wave breaker to at least one of an outer periphery of the bottom plate and one of the metal walls of the burner basket.

Fareid discloses a catalyst pack support for an ammonia oxidation burner which, as shown in Figs. 2 and 3, includes a catalyst pack 2, a catchment pack 3 and a support screen 4 being supported by Raschig rings 7 (Fig. 2) in a basket section of the burner. However, as noted by the Examiner on page 4 of the Office Action, Fareid does not disclose a wave breaker, as required by independent claims 25 and 41.

Ward discloses an ammonia oxidant catalyst made of specific materials, but does not disclose a support system which includes *a wave breaker arranged in the ceramic fillings, with the wave breaker being fixed to at least one of an outer periphery of the bottom plate and one of the metal walls*, as required by independent claim 25, or a method which includes *arranging a wave breaker in the ceramic fillings and fixing the wave breaker to at least one of an outer periphery of the bottom plate and one of the metal walls of the burner basket*, as required by independent claim 41.

In this regard, it is noted that on page 4 of the Office Action, the Examiner notes that Ward teaches a monolithic support which may be used with passages oriented at preset angles to the gas flow direction. Therefore, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to combine the monolithic support of Ward as a wave breaker in the apparatus of Fareid so as to improve gas distribution.

However, Ward discloses a catalyst which is made by forming a gauze, mesh or pad of wires, applying a wash coat of alumina, ceria, zirconia or lanthana, and then applying a dispersion containing the active oxides composition or a solution of compounds decomposable to the active oxides (page 5, lines 4-7). Ward also discloses that a monolithic support may be used instead of the gauze, mesh or pad of wires (page 5, line 22, emphasis added). In other words, Ward discloses a catalyst made by forming a monolithic support, applying a wash coat to the monolithic support, and then applying the dispersion to the monolithic support. Therefore, Ward does not disclose *a wave breaker arranged in the ceramic fillings* and being fixed to at least one

of an outer periphery of the bottom plate and one of the metal walls, because Ward only discloses a monolithic support which forms a part of the catalyst itself.

As discussed above, none of the Fareid and Ward references discloses or suggests a support system which includes a wave breaker arranged in the ceramic fillings, with the wave breaker being fixed to at least one of an outer periphery of the bottom plate and one of the metal walls, as required by independent claim 25, or a method which includes arranging a wave breaker in the ceramic fillings and fixing the wave breaker to at least one of an outer periphery of the bottom plate and one of the metal walls of the burner basket, as required by independent claim 41. Accordingly, a person having ordinary skill in the art would clearly not have modified the Fareid reference in view of the Ward reference in such a manner as to result in or otherwise render obvious the present invention of independent claims 25 and 41.

Therefore, it is respectfully submitted that independent claims 25 and 41, as well as claims 26-40 and 42-44 which depend therefrom, are clearly allowable over the prior art of record.

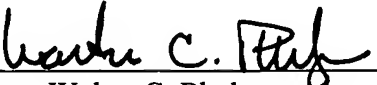
In addition, on page 15 of the Office Action, the Examiner indicated that claim 20 contains allowable subject matter because the prior art does not disclose a wave breaker having a sloping top. It is noted that the limitations of original claim 20 have been incorporated into new dependent claim 37.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice to that effect is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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